

**Notice of Allowability**

Application No.

10/811,312

Applicant(s)

BODO ET AL.

Examiner

Dennis Rosario

Art Unit

2624

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to AF 1/16/08.
2. ☒ The allowed claim(s) is/are 1-19, 22 and 25.
3. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) ☒ All   b) ☐ Some\*   c) ☐ None   of the:
    1. ☒ Certified copies of the priority documents have been received.
    2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
  5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
    - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
      - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
    - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☒ Information Disclosure Statements (PTO/SB/08),  
Paper No./Mail Date 8/6/04 1/17/06
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application
6. ☐ Interview Summary (PTO-413),  
Paper No./Mail Date \_\_\_\_\_
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other \_\_\_\_\_

**DETAILED ACTION**

**EXAMINER'S AMENDMENT**

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with David Brush, Reg. No. 34,557 on 1/31/08.

The application has been amended as follows:

Please replace claim 25 with the following:

25. (Currently Amended) A computer-readable medium comprising program code instructions recorded thereon, that can be used in a computer, comprising:

- computer-readable programming means to perform a step of extraction of at least one watermarking bit inserted into at least one watermarked motion vector, said watermarked motion vector being an optimal watermarked motion vector, which has been selected, among a plurality of potential watermarked motion vectors, according to at least one predetermined criterion,

- computer-readable programming means to perform a step of motion estimation between two images of a watermarked video image sequence, so as to obtain said at least one watermarked motion vector;

- computer-readable programming means to perform a step of analysis of the position of said watermarked motion vector in a reference space, associated with a reference grid comprising a plurality of blocks, each block being partitioned into two zones of complementary types, one zone surrounding the other zone, each of which has a distinct binary value associated with it, and determining in which block and which zone of said block the watermarked motion vector is located ~~and~~; and

- computer-readable programming means to perform a step of assigning to said watermarking bit of the binary value of the zone in which said watermarked motion vector is located.

***Response to After Final Amendment***

2. The after final amendment was received on 1/16/08 and will be entered. Claims 1-19, 22 and 25 are pending.

***Response to Arguments***

3. Applicant's arguments, see page 9, 4<sup>th</sup> paragraph, filed 1/16/08, with respect to "neither of said two blocks is further partitioned" have been fully considered and are persuasive. The rejection of claims 1-19, 22 and 25 has been withdrawn.

***Allowable Subject Matter***

4. Claims 1-19, 22 and 25 are allowed.
5. The following is an examiner's statement of reasons for allowance:

Claims 1, 18, 22 and 25 are allowable because the prior art does not teach the claimed "an optimal watermarked motion vector is selected" of claim 1 and similarly for claims 18, 22 and 25.

The closest art Bodo et al. (US Patent Application No.: US 2004/0175017 A1) teaches all the limitation of claim 1 including the applicant's arguments with respect to paragraph 3, above, except the "wherein" limitation that claims "an optimal watermarked motion vector is selected." Since Bodo is not prior art, a double patenting rejection was contemplated and overcome in the examiner's amendment, above.

Other art that are prior art, Demos (US Patent 6,957,350 B1), teaches selecting "optimum motion vectors" in col. 26, line 36 to be watermarked, but does not teach selecting the motion vector that is watermarked or a watermarked motion vector as the optimum watermarked vector; and

Vynne et al. (US Patent 5,960,081) teaches selecting a block based on criteria that can equate to an optimization criteria so that the optimized blocks are in turn used to select a motion vector for coding or watermarking; however, Vynne does not select an optimized watermarked motion vector, since Vynne selects a motion vector based on an optimized block so that the motion vector can be watermarked and is silent with selecting a watermarked motion vector or the claimed optimal watermark motion vector.

Thus, respective dependent claims 2-17 and 19 are allowable for depending on respective allowable parent claims 1, 18, 22 and 25.

The benefit of claims 1, 18, 22 and 25 optimizes "robustness or invisibility of the watermarking (specification, page 24, line 15)."

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dennis Rosario whose telephone number is (571) 272-7397. The examiner can normally be reached on 9-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Matthew Bella can be reached on (571) 272-7778. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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